

Abstract Submitted
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Summoning the wind: enhanced dispersal by synchronized discharge of fungal spores AGNESE SEMINARA, Harvard School of Engineering and Applied Sciences, MARCUS ROPER, Dept. of Mathematics, U.C. Berkeley, ANNE PRINGLE, Dept. of Organismic and Evolutionary Biology, Harvard University — Cup fungi use coordinated ejection to minimize air resistance upon spores in flight and increase the distance traveled by their forcibly ejected spores. Direct Numerical Simulations show how the near simultaneous release of spores mobilizes the air around the spores to create a favorable wind enhancing spore dispersal. Varying the size of the originating fruiting body and the time scale separating successive spore ejections illuminates the biomechanical challenges that these fungi have overcome on the evolutionary path to co-operative behavior.

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